

# STOCKTON-ON-TEES CORPORATION



# REPORT

OF THE

# Medical Officer of Health

TO THE

# URBAN DISTRICT COUNCIL

For the Year 1920.

#### THOMAS HORNE, M.D.,

Licentiate of the Royal College of Physicians, Edinburgh; Licentiate of the Royal College of Surgeons, Edinburgh; Member of the Epidemological Section of the Royal Society of Medicine; Medical Officer of Health, Medical Superintendent of Fever Hospital and School Medical Officer, Stockton-on-Tees; late Temporary Medical Inspector (2 years) Local Government Board; Formerly Medical Officer of Health for the Borough of Sandwich, &c.

STOCKTON-ON-TEES:

PRINTED AND PUBLISHED BY COATES & Co. (PRINTERS) LTD.

# INDEX.

								PAGE
Acts, Local and Genera	l Ado	ptive		• • •		• • •		42
Altitude of District		• • •	• • •					4
Antitoxic Serum	• • •	• • •	• • •	• • •	• • •	• • •		29
Area of District	• • •	• • •	• • •	• • •	• • •	• • •		3
Areas, Unhealthy	• • •	• • •		• • •	• • •		• • •	44
Bacteriological Examinat	ions	• • •	• • •	• • •	• • •			43
Bakehouses	• • •		• • •	• • •	• • •	• • •	• • •	22
Births	• • •		• • •	• • •		• • •	• • •	6, 7
Birth-rates, England and	Wales	S	• • •	• • •	• • •	• •	• • •	6
Birth-rate	• • •		• • •	• • •	• • •	• • •	• • •	6
	• • •	• • •	• • •	• • •	• • •			7
Births, Illegitimate		• • •	• • •	• • •	• • •	• • •		7
Bye-Laws and Regulation	ıs	• • •		• • •	• • •	• • •	• • •	19, 45
Causes of Death	• • •							8
Classification of Borough				• • •	• • •	• • •	• • •	3
Closet Accommodation		• • •	• • •	• • •	• • •	• • •	• • •	14
Conditions, Industrial			• • •	• • •	• • •	• • •	• • •	
		• • •	• • •	• • •	** * *	• • •	• • •	5, 6
Conversions, Privy		• • •		• • •	• • •	• • •	• • •	14
Cough Whaning		• • •	• • •	• • •	• • •	• • •	• • •	20
Cough, Whooping	• • •	• • •	• • •	• • •	• • •	• • •	• • •	32
Dairies, Cowsheds, and	Milksh	ops	Order		• • •		• • •	25
Deaths					• • •		• • •	7
Deaths, Causes of			• • •	• • •		• • •		8
Deaths of Illegitimate C	hildren		• • •	• • •	• • •	•••	• • •	9
Deaths in Wards	• • •		• • •			• • •		7
Deaths, Uncertified			• • •	• • •		• • •	• • •	10
Defects found by Inspect	ors of	Nuisa	ances				• • •	19
Density of Population			• • •					4, 5
Description and Situation	of Bor	ough				• • •		3
Diarrhœa				• • •				31
70.1 1 1 1 1 1 1	• • •							29
Diphtheria				• • •			• • •	29
Disposal of Excreta and I						• • •	• • •	14
Distribution of Population		• • •		• • •				4
District, Inspection of	• • •						• • •	18
Division of Borough	• • •			• • •	• • •	• • •	÷	4
Drainage	• • •			• • •		• • •		12
Dysentery	• • •		• • •					36
Enteric Fever	• • •	• • •	• • •	• • •	• • •	• • •	• • •	29
		• • •			• • •		• • •	30
Excreta and Refuse Dis	~	• • •	• • •	• • •	• • •	• • •	• • •	14
Examinations, Bacteriolog	gical	• • •	• • •	• • •		• • •	• • •	43
Factory and Workshops	Act							22, 23
Fever Hospital			• • •	• • •	• • •	• • •	• • •	41
Fever, Enteric	• • •	• • •		• • •		•••		29
Fever Puerperal	• • •	• • •		• • •		• • •	• • •	30

# INDEX—Continued.

									P	AGI
Fever, Scarlet	• •		• • •	• • •			• • •	• • •		28
Fitness of Houses .		• • •		• • •	• • •	• • •	• • •			44
Food and Drugs Act .		• • •	• • •		• • •				27,	43
Food			• • •	• • •					24,	27
Food condemned .			• • •		• • •				26,	27
Geology	• .			• • •	• • •	• • •		• • •		4
Gratuitous Medical Rel	ıet		• • •	• • •	• • •	• • •		• • •		11
Heights above Sea Lev	zel		• • •					• • •		4
Hospital Accommodation								40,	41	
Houses Let in Lodgin									1-,	20
Houses, Number of .		• • •			• • •	•••				4
Houses, Sanitary Conv				•••	• • •		•••			14
Housing Conditions .					• • •			• • •		43
Housing Shortage						•••	• • •	• • •		43
		•••					•••	•••		
	• •	• • •	• • •	• • •	• • •		• • •			7
Illegitimate Deaths .		• • •	• • •	• • •	• • •	• • •		• • •		9
		• • •		• • •	• • •		• • •	• • •	5	, 6
Infantile Mortality .	• •	• • •	• • •	• • •	• • •	• • •		• • •	9,	10
Infantile Mortality in	Wai	ds	• • •		• • •	• • •				9
Infectious Diseases .	• •	• • •		• • •		• • •				28
Inspection and Genera	.l Sa	nitar	y W	ork					18,	19
Institutions, Public, for	the	Sick	ζ	• • •		• • •	• • •	11,	41,	42
Isolation Provision		• • •				• • •			41,	42
I and and County Adam	- 4:	A 242								40
Local and General Adop	Juve	ACIS	• • •	• • •	• • •	• • •	• • •	• • •		42
Malaria		• • •		•••		• • •		• • •		36
Maternity and Child V						• • •				36
Maternity Home		• • •			• • •	• • •				39
Measles	• •	• • •		• • •		• • •	• • •			31
Measles, Deaths from				• • •		• • •	• • •			31
Meat Inspection								• • •		26
Medical and Surgical						• • •				11
Milk (Mothers and Chil							• • •			25
Milk Shops										25
Milk Supply									24,	25
Milk and Cream Reg										25
Mortality, Infantile .									9,	10
									·	
Notification Requiremen							• • •	• • •		34
Nuisances, List of, Abar	ted		• • •	• • •	• • •	• • •	• • •	• • •		19
Occupations					• • •	• • •	• • •	• • •	·	6
Offensive Trades										21
Ophthalmia Neonatorum	)	• • •								30
Overcrowding									-	
o, or or o waring		•••							,	10
Phthisis	• •	• • •			• • •	• • •	• • •	• • •		32
Pneumonia	• •	• • •			• • •		• • •	• • •		34
Poor Law Relief				• • •	• • •	• • •	• • •	• • •		10

#### INDEX—Continued.

							PAG	r E.
Physical Features of District				• • •				3
Population	• • •	• • •					;	3
Population of Wards							4	4
Population, Distribution of								4
Population, Density of							4,	5
Privy Conversions							1	4
Public Institutions for the Sick	• • •					11,	41, 4	2
Puerperal Fever				• • •		• • •	30	0
Regulations, 7th January, 1919					4		34	4
Rivers and Streams							1	1
Robson Maternity Home			• • •				39	9
Sale of Food and Drugs Acts	• • •	• • •		• • •	• • •	• • •	27, 43	
Sanitary Conveniences of Houses			• • •	• • •	• • •	• • •	1	
Sanitary Administration	• • •		• • •	• • •	• • •	• • •	40	
Sanitary Inspection of District	• • •	• • •	• • •	• • • `			18	
Sanitary Staff	• • •			• • •	• • •	• • •	40	
Scarlet Fever	• • •	• • •	• • •			• • •	28	
Scavenging		• • •	• • •	• • •	• • •	• • •	18	
Schools, Hygienic Condition of	• • •	• • •	• • •	• • •			25	
Sewerage and Drainage	• • •	• • •	• • •	• • •	• • •		12	
Situation of Borough	• • •	• • •	• • •	• • •	• • •	• • •		3
Slaughter Houses	• • •	• • • •	• • •	• • •		• • •	2:	
Smallpox	• • •	• • •	• • •		• • •	• • •	28	
Social Conditions	• • •	• • •		• • •	• • •			5
Staff engaged on Housing Work	• • •			• • •	• • •		46	ô
Supply, Water	• • •	• • •	• • •	• • •	• • •	• • •	11, 44	4
Statistics	• • •	• • •		• • •	• • •		45	ō
Tuboroulogia							0.0	0
Tuberculosis			• • •	• • •	• • •	• • •	32	
Trades, Offensive	• • •	• • •	• • •	• • •			2.	Ŧ
Uncertified Deaths	• • •				• • •	• • •	10	C
Unhealthy Area, Representation	• • •						44, 46	3
Unsound Food	• • •			• • •	0 + 1		26, 27	7
Unfit Houses	• • •	• • •	• • •	• • •		• • •	44, 45	5
Value of Early Administration o	of An	titovi	Ser	um	• • •		29	)
Vital Statistics				•••	• • •		6, 10	
	• • •	• • •	• • •	• • •	• • •	• • •	0, 10	
Ward Distribution of Populatio	n	• • •	• • •			• • •	۷	1,
Water Supply						• • •	11, 44	1
Whooping Cough	• • •	• • •	• • •		• • •	• • •	32	2



# Borough of Stockton-on-Tees.

## URBAN DISTRICT COUNCIL.

HIS WORSHIP THE MAYOR (Councillor Ralph Spark).\*†

Chairman Sanitary Committee

Alderman	R. Bainbridge*†	Alderman	J. Goldston*†
<b>5</b> 7	J. Batty*	,,	SIR J. HARRISON
19	A. Cameron,*†	<b>;</b> ;	F. T. NATTRASS
,,	G. H. DOUTHWAITE,*†	,,,	E. PIÇKWORTH
	$Chairman\ Hospital\ Committee$	,,	M. Robinson
,,	R. Dysert*	19	E. STEPHENSON
Councillor	C. W. Allison*	Councillor	A. Livingston*
,,	C. E. BARCLAY*†	,,	J. McNaughton
• 9	G. W. Bollands*	,,	C. Murgatroyd*†
,,	W. Brown	,,	W. REED
,,	J. CAMERON*	,,	J. RILEY
,,	R. COHEN	,,	J. D. Robinson*†
,,	J. CURNOW	,,	R. C. Robinson
,,	H. DIXON*	,,	I. Robson*†
••	R. M. ELLIOTT	**	W. J. Scaife*
,,	H. ERNEST	,,	J. W. SLACK
"	G. FAIRLESS	,,	A. TATE
,,	J. GARGETT	"	W. Thompson*
,,	R. GAUNT	**	G. VICKERSON
,,	J. Jewitt*	,,	G. WARTERS*
,,	J. Kelsall*†	,,	H. C. WATSON*†
,,	A. Lewis	79	T. WILKINSON
* M	embers of Sanitary Committee. †	Members of Hos	spital Committee.

Medical Officer of Health and SuperIntendent of Isolation Hospitals:

THOMAS HORNE, M.D., L.R.C.P, L.R.C.S.

#### Assistant Medical Officer of Health:

THOMAS J. KIRK, M.B.

#### Matron of Isolation Hospitals:

MISS J. F. MATTHEWSON.

#### Sanitary Staff:

Chief Sanitary Inspector—Mr. E. G. Power, A.R.S.I.

Assistant Sanitary Inspectors

Mr. John Kirby, Cert. R.S.I.

Mr. Robert Wilson, Cert. R.S.I., etc.

Miss Marion Jones, Cert. R.S.I.,

(Temporary)

Tuberculosis Health Visitor-Mrs. A. E. Jones, I.N.R.S.I., H.V. & Sch. N., R.S.I.

Health Visitors Miss L. CATCHPOLE, Cert. C.M.B., H.V. & Sch. N., R.S.I. Miss C. EDGELLER, Cert. C.M.B., H.V. & Sch. N., R.S.I. Miss J. W. SHARP, Cert. C.M.B.

Superintendent Scavenger-Mr. Joseph Leng.

Inspector of Common Lodging Houses—Inspector R. Nixon. Clerk—Mr. Harry Kipling, Cert. R.S.I.

Digitized by the Internet Archive in 2018 with funding from Wellcome Library

Public Health Office,

Borough Hall,

Stockton-on-Tees,

1st July, 1921.

To the Mayor, Alderman, and Councillors of the Borough of Stockton-on-Tees.

Mr. Mayor and Gentlemen,

As the Medical Officer of Health for Stockton-on-Tees, I have the honour to present for your consideration my Annual Report on the health and sanitary circumstances of the Borough for 1920.

Agreeable to a request by the Minister of Health, the Report has been compiled upon the lines indicated in his Memorandum, by arranging its several sections, as far as possible, in accordance with the order of the subjects covered by the Memorandum, in order to facilitate the examination of the Report by the Ministry.

The birth-rate for the year is higher than any birth-rate for any of the last 25 years, with the exception of the three years 1901, 1902, and 1906.

Compared with the death-rate for the preceding year, the rate for 1920 shows a decline of 1.0 per 1,000.

The Infant Mortality rate for the year is 109, against 105 in 1919. The increase is chiefly due to a greater mortality from Whooping Cough and other respiratory diseases, and to causes that operate ante-natally and are mainly responsible for the deaths ascribed to Prematurity, Atrophy, Marasmus, and the like.

The records of notifiable infectious disease for the year are, on the whole, distinctly gratifying; the almost total absence of Enteric Fever being especially noteworthy. The number of notifications of Diphtheria, Puerperal Fever, Ophthalmia Neonatorum, and Tuberculosis, respectively, was, however, in excess of the number in the preceding year.

I wish to again express my best thanks to the Council for the support and consideration continued to me throughout the year. I desire also, in particular, to acknowledge my indebtedness to the Town Clerk, whose advice has been of the utmost value on all occasions when difficulty in matters of importance has arisen.

To Mr. Power and the other members of the Health Office staff, my thanks are again due; whatever of value in sanitation has been realized in the district, it is largely due to their activities.

I wish also to acknowledge the conscientious devotion to duty displayed by the Council's Health Visitors, Miss Catchpole, Miss Edgeller, and Miss Sharp.

As Medical Superintendent of the Fever Hospital, I desire to thank Miss Matthewson—whose administration as Matron is, I believe, appreciated as highly by the Committee as by myself—for the attention secured to the patients, and for invaluable help in many ways.

I am,

Mr. Mayor and Gentlemen,
Your obedient servant,

THOMAS HORNE.

## Natural and Social Conditions of the District.

#### POPULATION.

The Registrar General has intimated to Medical Officers of Health as follows:—"In 1920 demobilization had reached a stage at which it is felt that the distinction between 'birth-rate populations and death rate populations,' made during a period when a large part of the male population was under arms, might, in general, be discontinued. For most districts, therefore, a single estimate of population is shewn and this is applicable to both births and deaths."

The estimate of the population of Stockton-on-Tees at July 1st, 1920, based on the returns furnished under the scheme for rationing of food is 63,114 persons. At the Census of 1911, the enumerated population was 52,154, so that 10,960 represents the decennial increase. This 10,960, however, is inclusive of a population—estimated at 6,363—that was brought into the Borough by the Stockton-on-Tees Extension Act, of 1913. Exclusive of this figure, the population is estimated to have increased by 4,597 persons. Whether the actual population is over or under the above estimates, will, of course, be shown shortly by the anticipated Census returns. I am inclined to think the error will not be large, one way or the other.

# Physical Features and General Character of the District.

SITUATION.

Stockton-on-Tees is an ancient town and borough in the County of Durham, situated on the left bank of the river Tees, about nine miles distant from the open sea. The site of the town is bounded on the east and south-east by the lofty range of the Cleveland Hills, at a distance of fourteen miles or so. On the west and north-west there is a general ascent from the Tees estuary towards the high lands of Durham County.

#### CLASSIFICATION.

The town is classified by the Registrar General among the ninety-six great towns of England and Wales, each of which had a population of 50,000 or over at the Census of 1911.

#### AREA.

The area of the borough is 5,561 acres. The town itself, that is, the area built upon, occupies some 1,840 acres.

#### ALTITUDE.

The contour of the ground surface is a trifle undulating, with a mean altitude of about fifty feet above ordnance datum.

Heights above sea level (in feet) in different localities.

Fairfield, The Avenue	84	Oxbridge Lane (near Cemetery)	48
Norton Tramway Terminus	69	Stockton High Street (near	
Hartburn, at junction of Green's		Parish Church)	45
Lane and Darlington Road	58	Yarm Lane	40
Fever Hospital	58	Portrack Lane (at Dog Hill	
Yarm Road (near Richard Hind		Farm)	36
School)	55	Corporation Quay	15
Bowesfield Lane (near Surgical		Near Haverton Hill Road	8.5
Hospital)	50		

Note.—High water at Spring Tide is 8.66 above ordnance datum.

#### GEOLOGY.

Except for comparatively small portions in the Norton and Hartburn Wards (where the subsoil is a glacial bed of sand and gravel), the borough is seated on a bed of diluvial clay of great thickness, overlying a stratum of sandstone.

#### DIVISION OF BOROUGH.

For Municipal administration, the borough is divided into eleven wards; it forms part of the Parliamentary Borough of Stockton-on-Tees, and for Poor Law purposes is included in the Stockton Union.

#### DISTRIBUTION OF THE POPULATION.

Wards	Area in Acres	Number of Houses	Estimated Population	Persons per Acre	Density per Hous	
Central	57	1080	4918	86	4.55	
Hartburn	1013	1443	6595	6	4.56	
Norton	2008	1258	5662	2	4.41	
North-West	352	1099	5256	14	4.78	
Parkfield	688	1231	6023	8	4.88	
Portrack & Tilery	254	1285	6771	26	5.26	
South-East	86	966	4652	54	4.81	
South-West	67	1533	6250	93	4.07	
Station	524	1125	4849	9	4.31	
Victoria	454	1178	6133	13	5.20	
West End	58	1 <b>2</b> 56	6005	103	4.78	
Borough	5561	13454	63114	11	4.69	

#### DENSITY PER HOUSE.

With 13,454 houses in the Borough, and an estimated population of 63,114, the average density per house in 1920 would be 4.69 persons. It may be seen by the above table that the estimated average density of population per house was over 5 in the Victoria Ward and in the Portrack and Tilery Ward, viz., 5.20 and 5.26 respectively, while in the remaining nine Wards it ranged from 4.07 in the South-West Ward, to 4.88 in the Parkfield Ward. The average density in 1911 in the Borough, as then constituted, was only slightly greater, or 4.78 persons per house.

#### OVERCROWDING.

At the Census of 1911 there were 690 tenements with more than two occupants per room. The total population in these tenements was 5,514 persons (2,006 were under ten years of age) so that 10.5 per cent. of the population were then living in conditions of overcrowding.

In course of a "Survey of Housing Needs" of the district conducted during September 1919, it was ascertained that there were then 759 tenements with more than two occupants per room. The total number of persons in these tenements was 6,341, or 10.02 of the population.

Overcrowding was greatest in the Victoria Ward, and least in the Station Ward. The number of overcrowded tenements in the various Wards was as follows:—Victoria 236, Portrack and Tilery 127, Parkfield 76, West End 72, Hartburn 66, South East 65, North West 33, Central 32, South West 26, Norton 14, and Station 12.

The "Survey" further disclosed the fact that no fewer than 1212 houses intended for one family only, were occupied (without having been specially adapted) by two or more families.

In course of inspections during the year under review, 42 additional instances of overcrowding came to light, so that it is pretty certain overcrowding had become greater in 1920 than it was in the previous year, and it is still more certain that the sharing of houses by two or more families is an expedient that has become more and more common.

#### SOCIAL CONDITIONS.

Stockton-on-Tees is essentially an industrial community, with almost complete absence of the leisured class. It is also the market town for a large agricultural area, and possesses shops, warehouses, and places of business such as usually characterise an important thriving business town.

#### OCCUPATIONS.

According to tables in the 1911 Census returns, which group the occupations of males and females, aged ten years and upwards, the chief occupations of the male inhabitants of Stockton-on-Tees were General Engineering, Machine Making, Iron and Steel Manufacture, Shipbuilding, and Building and Constructional Work. A considerable number of men were employed on Railways and Roads.

The chief occupations of the female inhabitants were Domestic Indoor Service, Charing, Day Domestic Service, Laundry and Washing Service, Teaching, Dressmaking, Millinery and Shopkeeping. Scarcely any females were engaged in heavy manual work, and not any were engaged in textile manufactures.

The industrial occupations of the male populations are not greatly different from what they were in 1911, but the occupational employments of the female population have altered not a little. Numbers of a class of young women who used to find acceptable employment as Indoor Domestic Servants now fight shy of Domestic Service altogether, and they either remain at home, or seek work elsewhere, where they can have more freedom. A larger proportion of young women of other classes are now employed as Clerks, Typists, &c., than in prewar times, while Washing and Laundry Work, Charing, and so forth, which formerly gave occupation to older women, is not now attractive to them, probably because of generally enhanced economic circumstances.

# Vital Statistics.

BIRTHS.

The gross number of births registered during the calendar year was 2,105—1,073 of boys, and 1,032 of girls. The nett births after correction for inward and outward transfers, number 2,061, of which 1,053 were males, and 1,008 females. The birth rate is therefore 32.65 per 1,000 of population. This is the highest local birth-rate in any year during the past quarter of a century, with the exception of the three years 1901, 1902, and 1906, in which years the rate was '33.2 33.1, and 33.8 respectively.

The birth-rate in England and Wales during 1920, per 1,000 of the total population was 25.4; in the ninety-six great towns (Stockon being one of these) 26.2, and in the 148 smaller towns (Census population 20,000 to 50,000) 24.9.

The births during the year exceeded the deaths by 1,076. This, therefore, is the Natural Increase figure for the year.

The total registered births, uncorrected for inward and outward transfers, were distributed as shown in the following table.

#### BIRTHS DISTRIBUTED IN WARDS.

Wards	Males	Females	Total	Birth Rate
Central	63	65	128	26.0
Hartburn	89	94	183	27.7
Norton	81	72	153	27.0
North-West	100	81	181	34.4
Parkfield	94	87	181	29.9
Portrack and Tilery	150	136	286	41.8
South-East	75	69	144	30.9
South-West	153	152	305	48.8
Station	46	53	109	22.4
Victoria	135	113	248	40.4
West End	87	110	197	32.8
Borough	1073	1032	2105	33.3

During the year ninety-nine illegitimate births were registered, equal to 4.7 per cent. of the total births.

#### DEATHS.

The number of deaths belonging to Stockton-on-Tees, registered during the calendar year, 1920, after correction for inward and outward transfers, is 984, of which 522 were of males, and 462 of females. The total is equivalent to a death-rate of 15.59 per 1,000 of estimated population. The rate for England and Wales is 12.4; for the ninety-six great towns 12.5, and for the 148 smaller towns 11.3. In the following table the deaths are distributed among the Wards according to the domicile of the deceased persons. The table also gives the death-rate in the various Wards.

#### DEATHS DISTRIBUTED TO WARDS.

	Estimated		Deaths			
Wards	Population	Male	Female	Total	Death-rate	
Central	4918	29	36	65	13.2	
Hartburn	6595	38	37	75	11.3	
Norton	5662	35	35	70	14.1	
North-West	5256	47	46	93	17.6	
Parkfield	6023	41	41	82	13.6	
Portrack & Tiler	ev 6771	69	58	127	18.7	
Couth Woot	[] 4652	51	45	96	20.6	
South-West	6250	47	30	77	12.3	
Station	4849	33	27	60	12.3	
Victoria	6133	76	52	128	20.8	
West End	6005	56	55	111	18.4	
Borough	63114	522	462	984	15.59	

# CAUSES OF DEATH IN STOCKTON-ON-TEES, 1920.

CAUSES OF DEATH	Males	Females.	Total.
ALL CAUSES (Civilians only).	5 <b>2</b> 2	463	985
1 7			0
1. Enteric Fever	- <b>0</b> 0	0	$0 \\ 0$
2 Maralas	5	5	10
4. Scarlet Fever	4	1	$\overset{10}{5}$
5. Whooping Cough	$1\overline{2}$	13	25
6. Diphtheria and Croup	8	8	16
7. Influenza	$\ddot{7}$	4	11
8. Erysipelas	Ò	0	0
9. Pulmonary Tuberculosis	$3\overset{\circ}{9}$	29	68
0. Tuberculous Meningitis	4	5	9
1. Other Tuberculous Diseases	9	8	17
2. Cancer, malignant disease	27	28	55
3. Rheumatic Fever	3	2	5
4. Meningitis	$2^{\cdot}$	4	6
5. Organic Heart Disease	49	52	101
6. Bronchitis	51	42	93
7. Pneumonia (all forms)	67	58	125
8. Other Respiratory Diseases	10	2	12
9. Diarrhœa, &c. (under two years)	20	26	46
0. Appendicitis and Typhlitis	$\frac{2}{2}$	1.	3
1. Cirrhosis of Liver	6	0	6
la Alcoholism	0	0	0
2. Nephritis and Bright's Disease	10	.11	$\frac{21}{2}$
3. Puerperal Fever	0	3	3
4. Parturition apart from Puerperal	0		-
Fever	0	7	7
25. Congenital Debility, &c	50	33	$\begin{array}{c} 83 \\ 28 \end{array}$
26. Violence, apart from Suicide	19 $1$	$egin{pmatrix} 9 \\ 2 \end{bmatrix}$	40   3
	116	107	223
10 0 0 0 0 0	1	3	4
y. Causes III-defined or unknown	J.	3	4
Deaths of Infants under 1 year of age	125	103	228
llegitimate	11	7	18
Total Births	1053	1008	2061
	4	220	1000
Legitimate	1007	959	1966
Illegitimate	46	49	95

Population (For Births and Deaths) 63,114

#### INFANT MORTALITY.

During the year under review, 229 infants who had been born in Stockton-on-Tees, died before reaching one year of age. The infant mortality-rate for the year is therefore 109 per 1,000 births. The rate for England and Wales is eighty, for the ninety-six great towns eighty-five, and for the 148 smaller towns, eighty.

As commonly the case, the illegitimate infant mortality rate is disproportionate to the rate for legitimate infants, viz., 181 for the former, compared with 105 for the latter.

The Infant Mortality Rate for the different localities is deduced in the next table.

Wards			Births	Deaths under 1 Year	Infantile Mortality Rate	
Central				128	8	62
Hartburn				183	17	92
Norton				153	15	98
North-West			• • •	181	25	138
Parkfield				181	31	171
Portrack & T	lilery			286	28	98
South-East				144	14	97
South-West				305	15	49
Station				109	9	82
Victoria				248	29	116
West End				197	38	192
Boro	ugh			2105	229	109

It would seem reasonable to ascribe the variations in the Infant Mortality-rate to the influence of environment, which includes, among other factors, housing, economic circumstances, and home training.

#### INFANT MORTALITY.

Nett Deaths from stated causes at various Ages under 1 Year of Age, 1920

			- +							
Causes of Death	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	4 weeks and under 3 mths.	3 mths. and under 6 mths.	6 mths. and under 9 mths.	9 mths. and under 12 mths.	Total Deaths under 1 year
( Certified	46	17	11	10	84	40	38	36	25	223
All causes Uncertified	3				3	2			1	6
, ( Oncoronica						-				
Measles							1.			1
Whooping Cough						2	2	4	2	10
Tuberculous Meningitis							1	1.		2
Abdominal Tuberculosis								1	2	3 .
Convulsions	. 3				3	1	1	1		6
Bronchitis		2	2	1	5	7	6	1.	8	27
Pneumonia (all forms)			1		1	อั	4	14	8	32
Diarrhœa						4	9	4	1	18
Enteritis	. 1	1	1	1	4	5	4	8	2	23
Gastritis						• • •				• • •
Syphilis		3	1		4	3				7
Atelectasis	. 1				1					1
Congenital Malformations	. 3	1			4		2			6
Premature Birth	. 32	5	1	5	43	7			1	51
Atrophy, Debility and Marasmus	8	4	3	2	17	6	7			30
Other Causes	1	1	2	1	5	2	1	2	2	12
	49	17	11	10	87	42	38	36	26	229

Nett Births in the year :—2061 Legitimate ... 1966 Illegitimate ... 95 Nett Deaths in the year: - 228 Legitimate Infants ... 210 Illegitimate Infants ... 18

#### POOR LAW RELIEF.

The total amount expended by the Guardians in Out-relief in the Borough and Township of Stockton-on-Tees, during the year ended 30th September, 1920, was, in Money £7,686. 4s. 6d., in kind, £564–3s. 8d., Total £8,250–8s. 2d. The Poor Law Infirmary, known as the Portrack Lodge Hospital, which has 155 beds, serves for the Stockton Union.

#### MEDICAL AND SURGICAL INSTITUTIONS.

Stockton and Thornaby Hospital. 80 beds, supported by voluntary contributions. Receives chiefly surgical cases. Admission is by subscribers' recommendation, but accidents are admitted free at any time. The volume of work done by the Institution is increasing. The number of patients treated during the year ended 30th June, 1920, was 10,696, of whom 1,619 were In-patients, and 9,077 Out-patients. The daily average of beds occupied during the year was 63.3, and the average stay in hospital per patient 13.81 days.

The Venereal Diseases Clinic, arranged by the Durham County Council is accommodated at the Stockton and Thornaby Hospital.

The Durham County Council Tuberculosis Dispensary, Cleveland House, Bowesfield Lane. A Medical Officer attends here on Monday and Thursday each week and does excellent work.

The Stockton Dispensary is a modest charity that supplies medical advice and attendance to poor persons who live within a defined area, on the recommendation of a subscriber. About 500 persons were prescribed for during the year.

#### WATER.

Stockton-on-Tees is within the area of the Tees Valley Water Board's supply. The Board's undertaking is one of very considerable magnitude, having involved an expenditure of nearly four millions sterling. About one-half the water supply is collected from admirable gathering grounds some thirty odd miles away. This is impounded in two reservoirs, which are connected by a tunnelled conduit, constructed in the valleys of the Balder and the Lune, tributaries of the Tees, and the other half is pumped from the river Tees and Broken Scar, about three miles above Darlington. Both waters are subjected to filtration through gravel and sand before reaching the storage reservoirs, of which there are several. The river water and that from the Balder valley is softer than that from the Lune valley, but neither have any plumbo-solvent action. The supply is abundant and constant, and is certified by competent Authority to be of excellent quality.

#### RIVERS AND STREAMS.

The river Tees, which separates the County of Durham from Yorkshire, and which is tidal to several miles above Stockton, is one of the Borough boundaries. In its course towards the sea it skirts the

southmost and eastern borders of the Parkfield Ward, then the curved margin of the South East Ward, thence along the south side of Victoria Ward, and lastly contiguous to that small portion of the Norton Ward that faces south-east. The river receives the crude sewage of the Borough.

A stream known as the Lustrum Beck (which has for tributaries, among other quite small streams, Hartburn Beck and Green's Beck) flows through the borough in a winding course from the south-west towards the north-east, where it eventually joins the river Tees. After heavy rainfall the beck overflows its banks here and there, flooding the adjacent land, but the flood waters do not reach dwellings. No sewers or house drains discharge into the stream.

A stream, Billingham Beck, courses along the north and north-east margins of the Norton Ward, constituting the borough boundary at these points. It eventually joins the Tees at the most eastern extremity of the borough. Ordinary tides flow about half-way towards the source of the stream. Sewage from a row of nineteen tenements in Calf Fallow Lane ultimately reaches the stream, passing first through a disused mill race. The overflow from a cesspool at Rangley House Farm, also discharges into the beck. The question of dealing with this sewage, so as to prevent pollution of the beck is under the consideration of the Council at the present time.

#### DRAINAGE.

New house drains are invariably constructed of glazed stoneware pipes, jointed with cement, and are ventilated. Defective old drains that are discovered are taken up and properly re-laid.

#### SEWERAGE.

Stockton-on-Tees discharges its sewage, without submitting it to any treatment, into the river Tees by eight principal and several subsidiary outfalls through which the sewage flows by force of gravitation. The principle outfalls discharge into the river at levels below that of ordinary low tide. The smaller discharge on to the river foreshore.

One of the more important sewers, known as the Lustrum Beck sewer was completed more than 25 years ago. It varies in diameter from fifteen inches to thirty inches. Commencing near the western boundary of the borough it follows a course through the town to the river, similar to the Lustrum Beck itself, receiving on its way the sewage from many smaller sewers.

Another main sewer of modern construction proceeds from near the west side of the Oxbridge subway, along Yarm Lane, and down Castlegate to the river.

The main Norton sewer varies in diameter from twenty-four inches at its outlet to twelve inches at its commencement. Its outlet is near to where Lustrum Beck enters the Tees. From the river it proceeds alongside Lustrum Beck to Portrack Bridge, across the Haverton Hill Road east of Portrack Bridge, and thence across agricultural land east of Home House Farm to South Road (Portrack Lane), along South Road to its junction with Billingham Lane, and thence along High Street, Norton, to the Green.

At a pumping station near Beaconsfield Street, the sewage from this district is lifted up a six inch cast iron main to the main sewer in South Road.

An old sewer which formerly discharged into Billingham Beck, is now connected up with the Norton Main Sewer near Portrack Bridge. This older sewer carries the drainage of the district south of Blandford's Corner.

A syphon conveys the sewage under the Stockton and Haverton Hill branch Railway.

The main sewer in the Durham Road district connects with Lustrum Beck sewer. A twelve inch pipe sewer, laid in 1913, provides for the drainage of that part of Durham Road between the Fever Hospital and Darlington Lane.

Fairfield is drained into the Lustrum Beck sewer at Oxbridge by a nine inch 'pipe.

The drainage of Hartburn flows into the Lustrum Beck sewer at a point near the Railway Bridge, Hartburn Lane.

All the modern sewers of the district have been carefully laid, and serve their purpose efficiently. No flooding of any serious extent occurred during the year.

## CLOSET ACCOMMODATION.

The following table shows the closet accommodation throughout the Borough at the end of 1920.

Wards	Houses with W.C.'s	Houses which share W C.'s	Houses with Midden Privies	Houses which share Midden Privies	Houses with Pan Closets	Houses which share Pan Closets	Houses with Slop Closets	Houses with both W.C.'s and Privies	Houses with both W.C.'s & Pan Closets	No. of Houses
Central	715	36	267	3	26	•••	23	7	•••	1076
Hartburn	753		535	6	15		• • •	52	5*	1322
Norton	490	1	743	51	7			88	1	1268
North-West .	655	25	412		29		1	5	1	1102
Parkfield	572		562		42		1	25	• • •	1188
Portrack & Tilery	379	7	981	8	8		2	3		1346
South-East .	656	66	47	6	6	9	10	1	1	788
South-West .	647		295	• • •	41		1	97	1	1084
Station	794	15	164	• • •	47	3‡	97	6	5}	1118
Victoria	1098	6	132	2	1		5	4	3	1220
West End	772	60	337	4	. 26	• • •	33	.40	2	1195
Borough .	. 7541	216	4475	80	248	.12	173	328	19	12707

† These have a water closet and a slop closet.
\* One of these has a pan closet and a midden privy.
‡ Two of these share a slop closet.

The number of closets on the conservancy system converted to the water carriage system during the seven years 1914-1920, is shown in the following table.

Ward	ls		1914	1915	1916	1917	1918	1919	1920	Total
Central	• • •		11	177	2		• • •	• • •	4	194
Hartburn			1	28					2	31
Norton			11	309	1				9	<b>3</b> 30
North West			5	17			• • •		2	24
Parkfield			13	8				• • •	2	23
Portrack and	Tile	ry	8	83						91
South East			5	151	6					162
South West			3	7	2				4	16
Station			1	3					11	15
Victoria			184	220					53	457
West End			10	54	1	• • • •			5	70
Boroug	gh		<b>2</b> 52	1057	12				92	1413

#### SCAVENGING.

During the period of the Great War "carry on" had perforce to suffice as a motto in connection with scavenging as with many other things. As soon as peace conditions began to be realised it was recognised that improvement in connection with the removal of excretal accumulations and domestic refuse was a legitimate aim, and the subject received consideration on several occasions.

Late in 1919, a Joint Committee, formed of members of the Sanitary Committee, and members of the District Fund Committee, was appointed "to consider whether any improvement could be made in the method of carrying out the work of supervision and control of the scavenging of the town."

At their meeting held on 25th November, 1919, the matter was discussed at considerable length. It was resolved that information be obtained by the Borough Engineer's Department as to methods adopted in other towns, also that the new Borough Engineer be asked to prepare a report with recommendations as to the methods he considers most advantageous in dealing with the matter. Certain information on other details was also to be obtained, and submitted to a future meeting. Eventually, after consideration of the matter had been adjourned from time to time, a lengthy report by the Borough Engineer was presented to the Sanitary Committee on the 8th March, 1920, from which I make the following extracts:—

"The work of the collection of house refuse is at present carried out exclusively by horse haulage, the average number of horses employed per 24 hours is 18, allotted to night and day collections as follows:—

# Night Collection—

Horses

Cleansing of Ashpits, Privy Middens, and Pan Closets ... 10 Day Collection—

Removal of Dry Ashes from Pans ... ... 8

- "The former work in conjunction with two scavenging gangs of five men each, and the latter work seven rounds, one spare cart being continuously employed relieving one or other of the rounds as necessity demands.
- "As regards the question of placing the scavenging of the Borough under the control of the District Fund Committee instead of the Sanitary Committee, I have no hesitation in recommending such a course, and it is a curious coincidence that the the method at present in operation in this Borough is similar, to that which existed up to quite recently in Wakefield. The

question was very thoroughly investigated, the practice in other towns inquired into, with the result that the Scavenging Department and also the Destructor were placed under the Works Committee, which is, of course, a Committee with the functions of your District Fund Committee.

"It was at one time a common custom for Sanitary Committees to control not only the house scavenging, but also the street cleansing of their towns, and there are Boroughs to-day, such as Bradford and Keighley, where such work is the responsibility of two Committees, and occasionally two officials, but the system has almost entirely given way in towns the size of Stockton to the modern method of placing the entire work of dust collection, sewer cleansing, street cleansing, gully emptying, in fact all sanitary matters requiring to be remedied by manual labour, under the Works Committee, the real function of a Health or Sanitary Committee being to discover nuisances, not to remedy them.

"There is nothing to be gained from a practical standpoint in separating these Public Health duties, and if one official controls the entire work, he ought, in my opinion, to be responsible to one Committee. Further, the modern methods simplify bookkeeping, and friction between two departments is avoided."

Up to March of the present year, the arrangements in force provided for the cleansing of the different classes of receptacles as follows:—

(a) Privy-pans weekly.

(b) Dry Ashpans every ten days.

(c) Wet Ashpits (Privy Middens) every three weeks.

(d) Dry Ashpits every three weeks.

Previously the intervals between the cleansings had been of more lengthy periods.

The District Fund Committee in March resolved "That the cleansing of wet Ashpits be carried out, in future, once a fortnight," and "That with regard to a, b, and d, the cleansing be continued as at present, subject to revision if found insufficient."

An outcome of the consideration of the Borough Engineer's report, was the transfer of the control of the Scavenging Department from the Sanitary Committee to the District Fund Committee, as from 1st June, 1920. By this it was believed that improvement in scavenging might be attained. It is difficult, however, to see how the simple transfer of control from one Committee to another without change in system, or increased vigilance would necessarily have this effect. I do not think anyone could suggest that the Sanitary Committee is one whit behind the District Fund Committee in their desire for, or in their efforts to secure wholesome conditions throughout the district. Be this as it may, however, it is a matter for regret that after several months of the new regime improvement in scavenging has not been

conspicuous. In March of the present year, and again in June, I felt it my duty to call the attention of the Sanitary Committee to the numerous complaints of neglect of scavenging both of privies and ash receptacles. After each of these occasions, I am glad to say, the immediate causes of complaint were removed, but I respectfully submit that more radical action, with a view to prevent the recurrence of this class of nuisance is urgently needed. I believe that a fundamental means to this end is the speeding up of conversions to the water carriage system, and I recommend this to the serious consideration of the Council. As reported by the Borough Engineer, consequent upon shortage of available labour, only sixty-eight of 172 conversions that had been ordered, had, up to the end of the year, been accomplished. In addition to this, it is to be noted that twenty others had been completed at the request of the Inspector of Nuisances. It is obvious that if conversions were continued to be effected at the same rate as during 1920, more than fifty years would elapse before conversions are complete throughout the borough.

Since the commencement of the present year, however, a considerable number of orders for conversions have been served, and it is hoped that more rapid progress in this direction will be made in the near future.

Table showing the different kinds of provision for house refuse, and the approximate number of houses with each variety of receptacle in the several wards at end of 1920.

WARD	Houses with Brick Built Ash Receptacles	Houses with Movable Ash Receptacles	Houses with Tippers	Privy Middens serving as Ash Receptacles for Single Houses	Privy Middens serving for Two Houses	Privy Middens serving for more than 2 Houses
Central	165	474	149	226	47	3
Hartburn ···	120	297	339	427	153	3
Norton ···	96	325	76	762	45	17
North-West	115	337	232	305	112	
Parkfield ···	129	199	239	317	271	3
Portrack and Tilery	32	179	143	525	476	
South-East	172	524	17	22	29	2
South-West	195	311	142	312	84	
Station	243	436	230	83	85	
Victoria	394	587	100	118	24	
West End	406	381	79	166	209	4
	2067	4050	1746	3263	1535	32

# SANITARY INSPECTION OF DISTRICT.

# Annual Summary of Inspections, 1920.

# Prepared by the Inspector of Nuisances.

								Totals
(a)	Inspections	following complain	nts		• • •			668
	1 1	of work in progres	ss					2154
	,,	of property in resp	pect to	outsta	anding	y Notic	ees	3380
	,,	following notificat	ions of	Infect	tious 1	Disease	e	1429
	,,	under Housing, To	wn Pla	nning	, &c.,	Act		413
	٠,	of Offensive Trade	es		• • •	• • •		91
	22	Workshops		• • •	• • •			96
	,,	Factories			• • •	• • •		18
	,,,	Bakehouses			• • •	• • •		139
	,,	Cowsheds	• • •					77
	,,	Milkshops	* * *		• • •	* * *		89
	99	Stables						177
	"	Slaughter Houses						758
	,,	Markets and Shop	S					145
	,,	Common Lodging	Houses	<b>5</b>				432
	,,	Ice Cream Shops						2
	"	Fried Fish Shops	• • •	• • •	• • •	• • •	* * *	139
								10311
(b)	Informal No	otices served	• • •			• • •	• • •	872
	Statutory N	Notices served						459
	Housing an	d Town Planning N	Notices	serve	cl			44
								1375
(c)	Informal No	otices complied wit	th				• • •	735
	,,	not complied	l with					137
	Statutory 1	Notices complied w	ith	• • •				306
	99	not complie	d with					153
	Housing an	d Town Planning N	Notices	compl	lied w	ith		_
	,,	77	,,	not co	omplie	ed with	ı	44

Nature of Defects or Nuisances	Number discover- ed	Informal Notices Served	Statutory Notices Served	Defects or Nuisances Remedied	Notices in arrear at end of 1919, complied with during 1920
Defective floors	$\begin{array}{c} 266 \\ 0 \\ 12 \\ 242 \\ 276 \\ 496 \\ 432 \\ 160 \\ 176 \\ 256 \\ 45 \\ 23 \\ 3 \\ 44 \\ 362 \\ \end{array}$	$\begin{array}{c} 266 \\ 0 \\ 12 \\ 242 \\ 276 \\ 496 \\ 432 \\ 160 \\ 176 \\ 256 \\ 45 \\ 23 \\ 3 \\ 44 \\ 362 \\ \end{array}$	$\begin{array}{c} 136 \\ 0 \\ 1 \\ 110 \\ 131 \\ 220 \\ 201 \\ 69 \\ 97 \\ 121 \\ 14 \\ 2 \\ 1 \\ 12 \\ 148 \\ \end{array}$	174 0 11 141 178 368 335 107 134 165 39 22 3 19 267	33 0 0 41 40 91 85 26 45 29 4 5 0 3 63
Dirty water closets Insufficient water supply to W.C.  Defective soil pipes Defective flush pipes Defective cisterns Defective water closets.  Defective privies.  Defective pans Defective or blocked drains Absence of or defective sink Defective sink waste pipes Defective cellar drainage	13 53 13 18 65 134 190 89 72 231 26 43 2	53 13 18 65 134 190 89 72 231 26 43 2	1 18 3 6 19 58 67 38 28 13 11 7	11 37 10 14 53 113 111 71 50 223 16 32 2	3 15 1 10 20 19 18 15 16 18 4 7 4

# PREMISES AND OCCUPATIONS CONTROLLED BY BYE-LAWS OR REGULATIONS.

The Urban District Council have made Bye-Laws for the control of Common Lodging Houses, allowed in 1879; Slaughter Houses, allowed in 1888; Offensive Trades, and the Keeping of Swine, allowed in 1903; also Regulations in respect of Dairies, Cowsheds, and Milk-Shops.

#### COMMON LODGING HOUSES.

The following were upon the register during the year.

		ACCOMMODATION						
Keeper's Name	Situation	No. of   No. of   Single   Single   Beds for Beds for Rooms   Rooms   Rooms   Single   Beds for Beds for Males   Females	Married Couples					
M	0 D	0	0	40				
Margaret Heerin	9, Ramsgate					• • •		
William Drake	18, Thistle Green	2	8	27				
Sarah Riley	56, Skinner Street	1	3	29				
Edward Larkin	14, West Row	2		43				
Ernest Withero	7, Black Bull Yard				• • •			
		4	_					
Francis Russell	20, Thistle Green	L	5	31				
Henry Dickenson	8, Cherry Lane	1 1	4	15				
Walter Walker		2	9	36				
Lavinia Branfoot	24, 25, Quayside					6		
1		-		1		U		
William S. Burton	25, The Square	2	Ð	20				
		18	65	300		6		

William Drake, 18, Thistle Green, is registered under the provisions of Section 76 of the Public Health Act, 1875, the other keepers are registered under section 69 (2) of the Public Health Acts Amendment Act, 1907. Each lodging house was visited by a Sanitary Inspector at least once each week throughout the year. Nuisances were found at 9, Ramsgate, and 7, Black Bull Yard. An informal notice sufficed to obtain an abatement of the nuisances at the latter address, but a statutory notice was needed before a similar result could be obtained at the former address. Several instances of non-observance of the bye-laws were observed, and on occasions delay occurred in getting attention to the matters complained of, but eventually this was managed without having recourse to legal proceedings. In addition to the day inspections, fifty-seven night visits were paid by Police Inspector Nixon, along with other Police Officers, who reported "all in order."

# HOUSES LET IN LODGINGS.

As mentioned in the report for 1919, "There are no bye-laws or regulations for the control of houses let in lodgings. I am of opinion there should be. There are several psuedo common lodging houses which escape inspection and supervision through the proprietors ostensibly only receiving lodgers for longer periods than twenty-four hours."

#### UNDERGROUND SLEEPING ROOMS.

The need for regulations under section 17 (7) of the Housing and Town Planning Act, 1909, does not arise, there being no underground sleeping rooms in the district.

#### SLAUGHTER HOUSES.

The same twenty-eight slaughter houses that had been licensed for 1919 were again licensed for 1920. That occupied by W. S. Toulson, Norton, was relinquished in favour of new and improved premises, for which plans were approved by the Council. Otherwise there was no change. Visits of inspection were paid not less than once each week throughout the year, frequently at times when "killing" operations were in progress. Having regard to the prevailing nature, etc., of the slaughter houses, the premises were kept for the most part as clean and tidy as well could be, but I am sorry to qualify this statement by saying that it was necessary on more than a single occasion to complain of negative care on premises where more than ordinary care would have been more befitting as a pattern. Agreeable to a resolution passed in November, 1920, I prepared a report on the question of the provision of a Public Abattoir. This report was presented to the Sanitary Committee on 10th January of the present year. Copies were circulated among the Members of the Committee, and after consideration thereof it was resolved "That no action be taken at the present time."

#### OFFENSIVE TRADES.

The Council have Bye-Laws which were allowed by the Local Government Board in 1903, for the regulation of the following trades, viz., Blood-boiler, Blood-drier, Bone boiler, Fellmonger, Tanner, Leather dresser, Soap boiler, Tallow melter, Fat melter or Fat extractor, Tripe boiler, Glue maker, Size maker, Gut scraper, and for the prevention of the keeping of Swine on any premises so as to be injurious to Health. The trade of Skin or Hide dealer or factor, within the borough is an Offensive Trade by Order of the Council, confirmed by the Local Government Board in 1911, and there are two premises where this trade is conducted.

Tripe boiling and gut scraping—both of which, more particularly the latter, give rise to offensive odours—are commonly done on premises that are licensed as slaughter houses. This is, in my opinion, objectionable, and is one reason which makes a public abattoir where processes allied to a butcher's business, could be regulated in separate departments desirable,

In a report dated October 30th, 1906, I wrote, inter alia, as follows:—.

"It is proper I should explain that in the various slaughter houses mentioned in the list, gut scraping is done chiefly in connection with the business of pork butcher, or with the manufacture of sausages, etc., and not as a distinct and separate trade. The quantity of intestines dealt with on these several premises is therefore variable, and in no instance is it equal to where the business of gut scraping is conducted as a trade by itself.

"A similar explanation would be correct respecting tripe boiling in slaughter houses.

"Nevertheless, if either process is carried on for gain or profit, it only depends, I presume, upon the extent of business whether the quantity of the guts or tripe that is prepared is small or great.

"The word descriptions of the various premises given in this report, must, I fear, fail to convey correct pictures to the minds of those to whom the several premises are unfamiliar. But I do not hesitate to express my opinion that many of the premises, both by reason of their situation and nature, are quite unfitted for the purpose for which they are employed."

An application on behalf of the Stockton, Thornaby and District Butcher's By-Products Co., Ltd., for permission to establish the trades of Tripe boiling, Gut scraping, Blood drying, Fat extracting, Tallow melting. Glue making and Bone boiling, upon premises known as Lustrum House Estate, was carefully considered, and permission was given in respect to Tripe boiling, and Gut scraping only.

An application for permission to conduct Tripe boiling on premises in Charlton Street was declined. The refusal was, however, ignored, and the trade commenced. After consideration of the facts the Council resolved to take proceedings against the proprietor unless the trade was discontinued. Proceedings were unnecessary, as the business was removed.

# Factories and Workshops Act.

FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

#### 1.-INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

	Premises							Number of Written Notices		
Factories (in	cluding	Factor	y Laund	ries)		17		2		
Workshops (i	ncluding	g Work	shop Lai	undries)		88		5		
Workplaces ( cluded in F				' premise	s in-	130		12		
Bakehouses				* * *		129		5		
	Total		•••			364		24		

#### 2. DEFECTS FOUND.

Nuisances under the Public Health Acts:

Total				• • •	53	 49
Bakehouses (ss. 97	to 100)		• • •	• • •	0	 0
Breach of special san	itary r	equireme	ents for			
Illegal Occupation of	' under	ground ba	akehouse	· · · ·	$\theta$	 0
ffences under the Fuctor	y and	Workshop	Acts: -			
or defective					8	 6
Sanitary Accommoda	tion, in	sufficient	, unsuit	able,		
Other Nuisances		• • •	• • •		21	 19
Want of Ventilation			• • •		1	 1
Want of Cleanliness					23	 23
Par	ticulars				mber of ets found	Number of ects remedic

#### 3.—HOMEWORK.

OUTWORKERS' LISTS, SECTION 107.

Lists received from Employers

		msts received from Employers.						
			ing twice he year		ng once he year			
Nature of Work		Lista	Outworkers	Lists	Outworkers			
Wearing Apparel—Alterations	• • • •	1	2	1	. 1			
Total		1	2	1	1			

#### 4.—REGISTERED FACTORIES AND WORKSHOPS,

Workshops on the Register (Section 131) at the end of the year.

Number o	f Factories			44	Number of	Workplaces	 82
,,	Workshops			166	,,	Bakehouses	 66
	Total numb	er of	Works	shops on	Register	358	

#### SCHOOLS.

The sanitary condition of the elementary schools in the borough is constantly scrutinized. Any defects that are discovered are at once remedied. All the premises have the Water Board's supply laid on. The hygenic conditions attached to one of the private schools are suspected to be somewhat unsatisfactory, and the matter is receiving attention.

The action taken in relation to the health of the scholars and for preventing the spread of infectious disease, closely followed the lines laid down in the Joint Memorandum of the Local Government Board and the Board of Education, 1909.

Scarlet Fever, Measles, Whooping Cough, and Diphtheria were all more or less prevalent among school children,

No school or department was closed, however, during the year on account of infectious disease.

The great majority of the cases of Scarlet Fever and Diphtheria were removed to the Fever Hospital. The other cases were isolated in their own homes, and kept under supervision until danger of spread of the disease was past.

Hospital cases of Scarlet Fever are usually detained for at least four or five weeks, and longer if rhinitis or other discharge from mucous membrane is present. Children discharged from hospital are not returned to school until two complete weeks have passed, and then only upon the certificate of the School Medical Officer or his Assistant, or of a private practitioner. Similar authority for return to school is required in respect to home treated cases, the home having first been disinfected by formalin spray, and the bedding and clothing by superheated steam. When cases are treated at home, other children of the invaded households are not allowed to attend school until two weeks after the premises have been disinfected, and then only upon a certificate of fitness to return. Hospital treated Diphtheria cases are detained until bacteriological examination of swabs from the throat or nose gives a negative result. After returning home, convalescents are kept out of school for two weeks, or longer if for any reason it is thought advisable. Home treated cases are allowed to return to school upon médical certificate of fitness, and after disinfection of the home, &c., has been! carried out. "Contacts" are excluded from school for two full weeks after the latest date of contact, and after disinfection of the premises. "The information as to notifiable cases among school children," is "promptly transmitted to the Head Teacher of the school concerned."

Ringworm cases are excluded from school until risk of other children contracting the disease is removed or appears to be negligible.

#### Food.

#### MILK SUPPLY.

Neither the milk produced within the borough, nor that imported was at all times wholesome, as witness certain reports of the Public Analyst which showed particular samples to be so contaminated by dirt as to render the milk unfit for human consumption.

Investigation into the conditions under which these particular milks were produced revealed very unsatisfactory circumstances, and steps were taken to obtain more cleanly conditions, with good results,

I estimate that about 600 gallons of milk are produced and distributed daily in the borough, and that approximately perhaps 1,500 gallons are imported. The total would give an average of very little more than  $\frac{1}{4}$  of a pint per head of the estimated population.

The facilities for distribution are indicated below.

# ADMINISTRATION OF THE DAIRIES, COWSHEDS, AND MILKSHOPS ORDERS.

The Register, which is revised from time to time, contains the names of fifty-eight Cowkeepers (thirty-three who have cowsheds in Stockton, and twenty-five whose premises are in other districts) and the names of sixty-three Purveyors of Milk.

The majority of the Cowkeepers dispose of a portion of their milk wholesale, and a portion retail. A few of the premises where milk is handled for distribution and retailed, are constructed and equipped for the special purpose, but the majority of premises where milk is sold are either small shops where trade in other commodities is conducted, or else are private dwelling houses. Public notice by advertisement of the requirement of registration is given from time to time. The regulations made by the Council under the powers conferred by the Contagious Diseases (Animals) Act, 1886, and the Dairies, Cowsheds, and Milkshops Order 1885, are enforced generally, particular attention being given to section nine.

#### MILK AND CREAM REGULATIONS, 1912 and 1917.

No sample of cream was submitted for analysis during the year.

# MILK (MOTHERS AND CHILDREN) ORDER, 1919.

The administration of this Order was under consideration by the Maternity and Child Welfare Committee at their Meeting held on the 15th January, 1920. The best method of dealing with cases was discussed, and eventually the Chairman undertook to go into the matter and re-organise the system to the extent necessary.

At the Meeting of the Committee held a month later it was resolved, in respect to a particular case, to give assistance under the Order for a period of two months, at the end of that period the case was to be re-considered.

At a Meeting of the Committee on the 13th May, 1920, a letter from the Ministry of Health, enclosing copies of scales of income adopted by the Durham County Council, and the Town Council of Jarrow, for guidance in determining the cases in which milk may be supplied to Mothers and Infants in their district, was received, and it was resolved that the matter be further considered at the next Meeting. At the June Meeting the Minute to this effect was continued.

In the absence of any different arrangement, the administration of the Order of 1919 remained similar to that of the Order of 1918, described on pages 23 to 26 of my Annual Report for the year 1919.

The amount expended on milk for necessitous cases during the year 1920, was £105 0s. 6d.

#### MEAT.

During the year inspection of meat was conducted in an indiscriminate way as heretofore. Although the inspector's visits to the slaughter houses frequently coincided in point of time with the time of slaughter, this was entirely by chance, and there is no arrangements for the systematic inspection of meat at this particular time. The conditions of the slaughter houses found at the times of inspection were, with a few exceptions, fairly satisfactory, having regard to the nature of the majority of the premises. No disease in meat was found by either of the inspectors.

A public abattoir has not been established in the district, but in November, 1920, I received instructions to prepare a report upon the question of the provision of a public abattoir. To bring information on the matter up to date, I may mention that after consideration of my report, which was presented in January of the present year, it was resolved to take no action at present.

No unsound meat, or other of the substances mentioned in sections 116 and 117 of the Public Health Act, 1875, was submitted to a justice during the year, but sixteen whole carcases and five parts of carcases, which were submitted for inspection by the owners, were condemned for tuberculosis.

Number of slaughter houses in use in the district at the dates mentioned:—

	In 1914.	In <b>Ja</b> nua <b>ry</b> , 1920.	In December, 1920.
Registered		Manage and American	_
Registered Licensed	30	28	28
	—		
Total	30	28	28

#### OTHER FOODS.

The following articles were condemned and destroyed after having been submitted for examination, and found to be unfit for the food of man viz., 198 lbs. of Chilled Pork, 37 lbs. of Bacon, 2 carcases of Sheep, 6 carcases of Lambs, 62 cases of Foreign Rabbits, 77 English Rabbits, 25 lbs. of Butter, and 5,400 Store Eggs.

Bakehouses and other premises where food is prepared were kept under surveillance. The requirements as set out in the Factory and Workshops Act in regard to the former, were duly enforced. Many premises where food is manufactured, prepared or cooked, fall short of the high standard of sanitation which is needed, but it is difficult to obtain this where the trade is done on premises not specially intended for the purpose, especially where the business is only of moderate extent.

No death, or outbreak of illness in the district was suspected to be due to food poisoning.

#### SALE OF FOOD AND DRUGS ACTS.

During the year the undermentioned samples, purchased under the provisions of the above, were submitted to the Public Analyst, viz., Milk 38, Self-raising Flour 3, Borax 3, Butter 2, Coffee, Ground Rice, Pepper and Lard, 1 of each.

Of the Milk samples, twenty-seven were of "Genuine Quality," eight were below the standard set up in the Sale of Milk Regulations, 1901, and three were certified to be contaminated by dirt.

Of the samples below standard

No. 2 contained Non-fatty Solids 8:22 per cent., Fat 3:05 per cent.

No. 8	,,	**	,,	8.67	"	,,	2.85	,,
No. 9	,,	,,	7 9	8.78	"	,,	2.85	,,
No. 11	**	**	,,	8.23	"	,,	4.75	,,
No. 16	,,	<b>* *</b>	,,	8.36	,,	,,,	2.95	,,
No. 25	,,	,,	,,	8.40	,,	,,	3.20	,,
No. 31	. ,,	<b>,•</b>	,,	4.22	,,	,,	1.76	,,
No. 35	,,	,,	,,	8.38	,,	,,	3.40	5'9

Of the three samples of dirty Milk

```
No. 42 contained dry dirt '0043 per cent., equivalent to 15 grs. per gal. of moist dirt
```

```
No. 49 ,, ,, .0053 ,, ,, 18·6 ,, ,, ,
No. 50 ,, ,, .0073 ,, ,, ,, ,, ,, ,,
```

The vendors of the samples below standard were warned by the Town Clerk. An outcome of fortuitous circumstances which prevented proceedings being taken in respect to No. 31, was a resolution by the Council authorising the Town Clerk to institute legal proceedings in all cases of alleged adulteration of food and drugs, which, in the opinion of the Analyst, and the Medical Officer of Health, warrant such proceedings being taken.

The samples of butter, coffee, ground rice, pepper, and lard were of genuine quality, while each of the samples of "Borax" was certified to contain sixty parts per million of Arsenious Oxide. Not having been sold as "Purified Borax," no action was taken.

#### Prevalence of and Control over Infectious Diseases.

By comparison with immediately preceding years, 1920 was, as regards prevalence of infectious diseases, auspicious, as may be seen by a consideration, in turn, of the numbers of cases of each disease. Variation in the list of notifiable diseases, precludes any useful comparison of the total notifications, viz., 618 received during the year, with the totals in antecedent years, viz., 1,193 in 1919, and 1,640 in 1915.

#### SMALL POX.

Not a single case of this disease occurred, and neither primary vaccination, nor re-vaccination was performed by the Medical Officer of Health under the Public Health (Small Pox Prevention) Regulations, 1917.

## SCARLET FEVER.

During the year 225 cases were notified, with five deaths, against 339 cases with fourteen deaths in the preceding year. The case mortality was 2.2%. Of the total cases 149 occurred singly in households, while a plurality of cases occurred in thirty-four households, two cases occurring in each of twenty-six, and three in each of eight households. 71.3% of the cases occurred at ages under fifteen years, 8.2% under one year of age, 18% at ages one to five years, and 44% at ages five to fifteen years. 92% of the notified cases were removed to hospital.

#### DIPHTHERIA.

This disease was much more prevalent than in the preceding year, 108 cases against 71 being notified. A single case occurred in each of ninety-seven households, two cases in each of four households, and three cases in one household. The mortality, too, was much greater, sixteen deaths against nine in the preceding year being registered as due to the disease. The case mortality was 14.8 per cent. 83.3% of the notified cases were removed to hospital.

Death from diphtheria is more to be deplored than death from some of the other infectious diseases, because a fatal termination to a case of diphtheria too often means an opportunity for successful treatment lost. In previous reports, I have, in this connection, emphasised the importance of two factors: early treatment, and adequate dosage of anti-diphtheria serum. It is nothing short of astounding how frequently early treatment is impossible, because medical aid has not been sought soon enough. It sometimes seems as though an illness must be seen to be desperate before a doctor is thought to be required. Of course this is due either to non-observance of, or to lack of appreciation of the intent of symptoms. The first symptom of throat diphtheria in a child is usually lassitude. He both feels and looks tired. His face is wan. Perhaps he has head-ache and feels chilly. There is usually a moderate rise of the body temperature only, and a little or no pain in the throat is complained of. Symptoms such as these call for examination of the throat by a medical man, and then should diphtheria be even suspected, anti-diphtheria serum should be administered with as little delay as possible. At the same time a swab should be taken, and the material submitted to microscopical and cultural examination, so as to remove any doubt as to diagnosis.

The symptoms of the laryngeal variety of the disease are somewhat different. Hoarseness of the voice, and a harsh, brassy cough, are early signs. These are soon followed by increasing difficulty in breathing. Urgency in these kind of cases is great indeed, for sometimes a case is fatal within thirty-six hours.

#### ENTERIC FEVER.

Only one solitary case of this disease was notified. The diagnosis was confirmed by Widal re-action. The sufferer was a female, aged twenty. She was nursed at home and recovered. Her occupation took her each week-day into a neighbouring district, whence it is possible she derived infection.

## ERYSIPELAS.

Eighteen cases of erysipelas were notified, but no death occurred from the disease.

## PUERPERAL FEVER.

Seven cases of this disease, three of which terminated fatally, were notified during the year, compared with four cases with no deaths in the preceding year.

One of the deaths certified from Puerperal Fever occurred on the same day that the notification was received—the seventh after a natural labour.

The date of the notification of another case and the date of death of the patient, eleven days after her confinement, were identical.

Another death from the disease occurred on the day following the receipt of the notification, and just a week after the confinement.

Another of the seven cases notified had a fatal termination, but the certified cause of death was "Puerperal Toxæmia," so that it is not classed as a death from Puerperal Fever. The case occurred in a dirty one-room tenement occupied by a man, the patient, and their child.

Of the non-fatal cases, two followed instrumental labours, and one a confinement attended by a midwife.

Inquiry was made into the circumstances of each case. Nursing assistance was rendered by a Queen's nurse in the cases where this was possible. Disinfection of the dress, etc., of the attendant midwives, and the other usual precautions were carried out.

## OPHTHALMIA NEONATORUM.

During the year thirty-four cases were notified compared with twenty-three in the previous year. The discharge was stated to have commenced on the day of birth in seven cases, on the second day after birth in five cases, and on the third day after birth also in five cases. In the remaining 50% of the cases a different period, varying from four to thirteen days elapsed after birth before the discharge was noticed. Four of the cases occurred in the Robson Maternity Home. Medical advice and the services of a Queen's nurse was secured for each case as it was notified, unless this had already been provided. One case had a disastrous termination, sight of one eye being lost entirely, and sight of the other permanently seriously damaged.

### MEASLES AND GERMAN MEASLES.

During the part of the year while these diseases were compulsorily notifiable, viz., the first quarter, thirty-nine cases were notified, while during the remaining three quarters of the year 307 cases were ascertained, making a total of 346 cases, resulting in ten deaths, compared with 410 cases with fifteen deaths in the preceding year. Intelligence of the 307 cases came from parents, through school teachers, school attendance officers, the school nurse, health visitors and district nurses.

The steps taken to control incidence of the disease and to lessen mortality or danger therefrom, were similar to those detailed in preceding reports.

Under the agreement existing between the Council and the Nursing Association, 276 sufferers under five years of age received 1,212 nursing visits. Thirty-two of these sufferers needed almost unbroken nursing. In addition 535 nursing visits were paid to 107 sufferers over five years of age.

## DIARRHŒA.

This disease was the assigned cause of death of forty-six infants under two years of age, an increase of 64% above the number in the preceding year. The deaths were in the ratio of 22.3 per 1,000 births, compared with a rate of 8.3 in England and Wales, and 10.4 in the ninety-six great towns.

The Ward distribution of diarrhœa deaths (under two years) was as under.

Wards	Uncorrected Births	Deaths	Death-rate per 1000 Births
Central	 128	1	7.8
Hartburn	 183	. 4	21.8
Norton	 153	3	19.6
North-West	 181	4	22.1
Parkfield	 181	9	49.7
Portrack and Tilery	 286	5	17.5
South-East	 144	0	
South West	 305	1	3.3
Station	 99	<b>2</b>	20.2
Victoria	 248	6	$24\cdot 2$
West End	 197	11	55.8
Borough	 2105	46	21.8

Of the total diarrhœal deaths 41% occurred in the two months September and October.

## WHOOPING COUGH.

This disease was prevalent during the first half of the year, with greatest intensity in the month of April. Not being compulsorily notifiable, the precise number of cases that occurred cannot be stated. It was the certified cause of twenty-five deaths, four in January, three in February, three in March, nine in April, four in May, and two in June. Hartburn Ward with five deaths suffered most, while the North West and Victoria Wards with four deaths in each suffered almost as severely. The Station Ward was the only one that escaped fatality from the disease. While no less than 88 per cent of the deaths occurred at ages under three years of age, it is noteworthy that the disease was the certified cause of death of a person at the advanced age of seventy-nine years.

The steps taken for the control of the disease were similar to those taken for the control of Measles, so far as these were applicable. Nursing assistance, as provided for by agreement between the Council and the Stockton and Thornaby Nursing Association, was rendered to seventeen cases.

### TUBERCULOSIS.

During the year 213 notifications of tuberculosis were received, a larger number by eighty-nine, or 41% than the number in the preceding year. Of the total 124, equal to 58%, were of pulmonary tuberculosis, and eighty-nine, or 42% of non-pulmonary. The increase in the notifications of the former was 39.3% and in the latter 35.4%.

Compared with the average for the five years 1915—1919, the notifications of pulmonary cases were more by twenty-three, and the non-pulmonary more by fourteen.

# Notifications of Tuberculosis during 1920.

	Ford	м А.	For	м В.	For	м С.	For	м D.	1918		
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Tot.
Pulmonary	36	16			1		$\overline{2}$		32	37	124
Non-Pulmonary	25	24	2						17	1.6	84
Meningitis									3	2	5

# Notifications with regard to Age and Sex.

		AGES.										
		0-1	1-5	5-15	15-25	25-45	45-65	65 & over	Tot.			
PULMONARY { Males Females		- • •	1	7 15	18 13	28 19	17 5		71 53			
Non-Pulmonary { Males Females	• • • }	3 1	9 14	22 14	6	2 2	$\frac{2}{2}$	1	44 40			
MENINGITIS { Males Females		1	1 1	2	•••		···		3 2			

## Notifications of Tuberculosis which occurred in each Ward.

All Ages.			Hartburn	South-West	Parkfield	West End	Central	North-West	Station	Norton	Portrack and Tilery	Victoria	South-East	Totals
Pulmonary			19	6	14	10	9	9	4	7	16	20	10	124
Non-Pulmonary	• • •		9	7	10	8	5	8	2	3	11	12	9	84
Meningitis		• • •		• • •	2	1	•••	1	• • •	1	* * *		• • •	5

# Deaths from Tuberculosis during the Year 1920.

	Males	Females	Total
Pulmonary	36	24	60
Non Pulmonary	10	9	19
Meningitis	3	4	7

# Deaths arranged with regard to Age and Sex.

				AGE	s.			m a t
	0-1	1.5	5-15	15-25	25-45	45-65	65 & over	Tot.
Pulmonary { Males Females		3	2 5	4 4	15 13	$10 \\ 2$	2	$\begin{array}{c} 36 \\ 24 \end{array}$
Non-Pulmonary { Males Females	3	2 4	1 1	1	$\frac{2}{2}$	 1	1 1	$\begin{array}{c} 10 \\ 9 \end{array}$
Meningitis { Males Females	2	2 2	1	•••	•••			$\frac{3}{4}$

Number of Deaths which occurred in each Ward	Number	of	Deaths	which	occurred	in	each	Ward.
--	--------	----	--------	-------	----------	----	------	-------

All Ages	Victoria	Tilery and Portrack	Parkfield	South-East	West End	Hartburn	Norton	South-West	Station	Central	North-West	Total
Pulmonary Non-Pulmonary	13 3	10 4	10	$\frac{5}{2}$	3	6	4 2	1 4	$\frac{3}{2}$	3 2	2	60 26

The total number of persons notified to be suffering from tuber-culosis and known to be alive on 1st January, 1921, was 662—336 were suffering from the pulmonary form, and 226 from the non-pulmonary forms.

Each case notified is inquired into by the Tuberculosis Health Visitor, an officer who serves in this capacity both the County Council and the Urban District Council. She reports to the Medical Officer of Health any sanitary defects that she may observe on the concerned premises, and as to the sufferer's environment generally. Every effort is made to obtain abatement of overcrowding where this nuisance is found, but not infrequently, owing to the shortage of houses, practicable measures to this end are not easily found. Printed and verbal advice appropriate to each set of circumstances is given. Disinfectants, &c., are supplied free for home use, and rooms, bedding, clothing, etc., are disinfected whenever considered advisable.

The Dispensary Tuberculosis Medical Officer and the Medical Officer of Health are in close co-operation, so that ameliorative and preventive measures are employed to the best advantage.

Laxity in the observance of the requirements of the notification of tuberculosis on the part of some medical practitioners I regret to say, still continues to be too often noticeable. The reasons for this are several, and were referred to in my annual report for 1919, as was also the action taken with a view to secure prompt notification.

### PNEUMONIA.

Under the regulations of the 7th January, 1919, 176 notifications of Pneumonia, 6 of Malaria, and 1 of Dysentery were received.

Age and Sex distribution of notified Pneumonia.

Ages	Under 1 year	1-5 years	5-15 years	15-25 years	25-45 years	45-65 years	65 and over	Totals
Males Females	$\frac{6}{4}$	9 19	23	21 7	31 19	14 7	6	110 66
Totals	10	28	32	28	50	21	7	176

Ward distribution of notified Pneumonia month by month.

Months	Central	Hartburn	Norton	North-West	Parkfield	Tilery and Portrack	South-East	South-West	Station	Victoria	West End	Total
February March April May June July August September Octobor	1 1 1 1 4 2  1 1 2 4 	1  1  1  1 	1 2 2  1  1 	$\begin{bmatrix} 3 \\ 2 \\ 7 \\ 3 \\ 4 \\ 3 \\ \dots \\ 1 \\ 2 \\ \hline 31 \\ \end{bmatrix}$	1  2 2 1 1 1 1 1 1 1 1 	1 3 2 2 3 1 2 5 4	1 1 2 2 2 1 4 2 15	2 2 1  1  2 	2 3 2   2  2 	4  4 2 2 3 3 2 2 2 2 3 1	$\begin{bmatrix} 1 \\ 1 \\ 2 \\ 2 \\ 1 \\ \dots \\ 2 \\ \dots \\ 1 \\ 12 \end{bmatrix}$	15 5 22 21 22 16 10 7 14 14 20 10

Distinguishing between the forms of notification, the largest proportion (101) were notified as "Pneumonia," forty-nine as "Lobar Pneumonia," eighteen as "Primary Pneumonia," seven as "Influenzal Pneumonia," and one as "Brocho Pneumonia."

A superficial examination of the above figures makes it pretty evident that many of the fatal cases of pneumonia could scarcely have been notified, and the correctness of this supposition is established by inspection of the death sheets.

Perhaps it is as well to point out here that the regulations limit notification to cases of "Acute Primary Pneumonia," and "Acute Influenzal Pneumonia." Cases of secondary pneumonia, such as occur following Measles and Traumatism for example, do not require to be notified.

The number of deaths attributed to pneumonia (all forms) during the year was 125, equal to a death-rate of 1.98 per 1,000 of population.

Deaths from Pneumonia at different age-periods.

Under 1 year	1-5 years	5-15 years	15-25 years	25-45 years	45-65 years	65 and over	Totals
38	21	8	4	13	25	16	125

## Ward distribution of Deaths from Pneumonia, month by month.

Months	Central	Hartburn	Norton	North-West	Parkfield	Portrack and Tilery	South-East	South-West	Station	Vietoria	West End	Total
January February March April May June July August September October November December	2 2 1 1 2 1 1	2 3 1  1  1 2		1 3 4 2 4 2 1 1 1 		$egin{array}{cccccccccccccccccccccccccccccccccccc$	1  4 1 1  2 1 		3 1 	1 3 2 1 6 1 3 3	1 1 1  2  1 2 2	5 8 11 25 16 12 8 3 6 10 11 10
Totals	 10	10		20	11	15	11	10	6	22	10	125

Of the cases of Malaria, none were indigenous.

The case of Dysentery, which was notified as bacillary, was in respect to an ex-soldier who contracted the disease abroad, and who had suffered from several relapses in England.

## Maternity and Child Welfare.

In this connection, work throughout 1920 was continued on similar lines to those described in my Annual Report for 1919. The salaried staff engaged in the work includes a part-time Woman Medical Officer and three Health Visitors. The two Centres, known respectively as No. 1 Centre and No. 2 Centre, are at the same addresses as before. The premises, No. 3, Oxford Terrace (No. 1 Clinic) are now the property of the Corporation, having been purchased with the sanction of the Ministry of Health. Each Centre is open as a Clinic from 2.30

to 4 o'clock on one afternoon a week when the Medical Officer, Dr. Minnie Levick, attends to give advice in respect to infants and children under five years of age, and to any mothers or prospective mothers who may apply. Two Health Visitors assist at each session. All the infants brought are weighed, and advice is given on feeding, clothing, and child hygiene. Card records are kept of each child. With the exception of the application of an umbilical pad by the Health Visitors, for which a charge of 2d. is made, or the supply of alterative powders, at a charge of seven for 1d., no actual treatment is undertaken. When treatment is required, the parent or guardian is advised to apply either to a private practitioner, or to 'the Institution that appears most appropriate under the particular circumstances.

Glaxo is supplied to mothers who bring their babies to the Centres on the order of the Medical Officer. Cost price, plus two pence per lb. is usually paid for it, but in necessitous cases it is given free. During the year 4,669 lbs. were sold, while 47 lbs. were given free. Similarly,  $27\frac{3}{4}$  lbs of Virol were sold at about cost price.

Concurrently with the medical consultations at each session, valuable voluntary welfare work, both of an educational and social character, is carried on by a band of enthusiastic ladies. They make and exhibit articles of infant clothing, which find ready purchasers. A cup of tea and a biscuit is provided at a charge of 1d. each person.

To encourage attendance at the Centres, a circular letter is sent to each home from which a birth is notified.

## [Copy Letter].

Health Office, Stockton-on-Tees.

Dear Madam,

The Medical Officer of Health having been notified of the birth of a baby—that priceless gift of Nature—it becomes the duty of one of the Council's Health Visitors to call upon you as promptly as practicable, ready, not only to give advice upon the various matters that concern infant health, but prepared also to be helpful to you in any way that she can. Her visit is to be informal, friendly, and sincerely sympathetic, and the Maternity and Child Welfare Committee trust that the Health Visitor will be received in similar spirit.

The Committee also hope that as soon as circumstances permit, you will accept their cordial invitation, and take your baby to one of the Council's Maternity and Child Welfare Centres which it is scarcely necessary to say, are conducted solely in the interests of babies and their mothers, If you will accept this invitation you will receive a most cordial welcome, both by an experienced lady doctor, and by other ladies interested in child welfare. Your baby will be carefully examined by the doctor, it will be weighed, and any advice that appears to be needed, will be given in as plain and simple language as possible.

It is proper to point out here that proper examination by a doctor will frequently detect in a baby early departure from health that is not noticeable to the ordinary observer.

Thus the doctor is often able to give advice calculated to prevent ill-health, besides of course, being able to advise as to the treatment of any actual delicacy or defect that may have already shown itself.

Surely then, you will not hesitate to accept the Committee's invitation and go to the centre with your baby as soon as you are able. Learn by experience whether it is worth the while.

Please do not forget that Health (the best possible) is the birthright of every child.

The addresses of the Centres and the times of attendance at each are:—

- No. 1 Centre.—3, Oxford Terrace. Attendance every Wednesday, 2-30 to 4 p.m.
- No. 2 Centre.—Congregational Church Sunday School Rooms, Park Road Attendance every Tuesday, 2-30 to 4 p.m.

By Order,

THOMAS HORNE, M.D.,
Medical Officer of Health.

The average attendance of infants at each Centre shows an increase compared with the preceding year, the figures for No. 1 Centre being 25.3 against 20.4, and for No. 2 Centre 18.1 against 17.4. The average attendance of expectant mothers at either Centre did not, as in the preceding year, reach a unit.

The corrected number of births registered was 2,061—legitimates 1,966, illegitimates 95. The number of live births notified within thirty-six hours of birth was 1,248, or 60.5% of the number registered. Of the births that were notified, midwives notified nearly 79%, and doctors and parents the remaining 21%. In addition to the live births, thirty-eight still births were notified within thirty-six hours of birth.

The total number of home visits paid by the Health Visitors during the year was 7,004, made up of

15		• • •	 ant mothers	to expectan	First visits
4			 do.	do.	Repeat
189	• • •		 under 1 year	to infants u	First visits
327	* * *		 do.	do.`	Repeat
164	* * *		 years of age	ildren 1-5 y	Visits to Cl
700				ß	
189	• • •		 under 1 year do.	to infants u do.`	First visits Repeat

In the month of August Dr. Turnbull, of the Ministry of Health visited Stockton-on-Tees, and made inquiry into Maternity and Child Welfare work, and, later in the year, letters containing several suggestions in this connection were received from the Ministry.

One suggestion was that an Assistant Medical Officer of Health, who might suitably be a woman and who might give part time to Maternity and Child Welfare, part time to the School Medical Service, and in addition, act as the Medical Officer to the Maternity Home, should be appointed. Another was that an additional Health Visitor is necessary to enable the systematic visiting of young children to be adequately carried out. Having myself made similar recommendations, it is scarcely necessary to say that I regret to add that the Council have not as yet acted upon either.

## THE ROBSON MATERNITY HOME.

The number of applications for admission to this Institution furnishes unequivocal evidence of its continued usefulness and popularity. At January 1st, 1920, there were ten patients remaining in the Home, and the following tabular statement shows the work of the Institution during the year:—

Number of Patients admitted				• • •		244
Number of live births			* * *	• • •	• • •	$2\overline{22}$
Number of still births		• • •	• • •		• • •	8
Number of patients discharge	ed		• • •		• • •	462
Number of maternal deaths .		• • •	• • •	• • •	• • •	Nil
Number of infant deaths		• • •		• • •	• • •	6
Number of patients remaining	g 31st	Decen	nber, 1	920		8

In December, 1919, the Chairman reported that the accommodation provided by the Home (10 beds) was insufficient to meet the demand, and the question of additional accommodation was considered. In November of the following year, a Committee was appointed to consider as to extensions, but up to the present they have not been able to make any recommendation.

During the year, also, the question of medical attendance at the Home was under consideration on several occasions, and in November the Medical Officer of Health, who, from the time of the opening of the Home up to that date had responded to the calls for medical assistance during the day or night, was, at his own urgent request, relieved of these duties. Drs. Kirk and Mather were appointed medical attendants, to which, as a temporary arrangement, the Minister of Health assented.

# Provision of Hospital Accommodation for Children under Five Years of Age.

This was under discussion on many occasions. No practicable scheme has so far been forthcoming, but the question has not been lost sight of.

## Sanitary Administration.

(1.) STAFF.

The Medical Officer of Health is the accredited head of the Health Department.

The personnel of the Sanitary Staff proper is as under:-

Edward Gibson Power, A.R.S.I., Sanitary Inspector.

John Kirby, Cert. R.S.I., Assistant Sanitary Inspector.

Robert Wilson, Cert. R.S.I., and Cert. Sans. Insp. Exam. Board,
Assistant Sanitary Inspector.

Marion Jones, Cert. R.S.I., Assistant Sanitary Inspector

(Temporary).

Harry Kipling, Cert. R.S.I., Clerk.

For general and systematic inspection purposes, the borough is divided into four districts, designated No. 1, 2, 3, and 4 district respectively. Mr. Power takes No. 1 district, Miss Jones No. 2, Mr. Kirby No. 3, and Mr. Wilson No. 4.

In addition to inspecting his own particular district, Mr. Power performs the duties of an Inspector of Nuisances as set forth in Article XX. of the General Order of the Local Government Board, 13th December, 1910. He exercises general direction and supervision over the Assistant Inspectors, and is responsible for seeing that the various Registers are properly kept, and for the service of Notices. He reports to the Sanitary Committee at each meeting. Each of the Inspectors is designated an Officer for making inspections under, and for the purposes of Sub Section 1 of Section 17 of the Housing, Town Planning, &c., Act, 1909, in accordance with Article II. of the Housing (Inspection of District) Regulations, 1910.

In addition to making general and systematic inspections in No. 2 district, Miss Jones makes systematic inspections of the Workshops, Bakehouses, and Workplaces where females are employed throughout the Borough.

# (2.) HOSPITAL ACCOMMODATION AVAILABLE FOR INFECTIOUS DISEASES.

The Stockton Fever Hospital provides accommodation nominally for 51 patients, actually for 66. The diseases ordinarily treated are Scarlet Fever, Enteric Fever, and Diphtheria. Cases of other diseases are admitted, however, provided accommodation is available. The extent to which the Hospital was used by the public is plainly indicated by the proportion of cases admitted. Out of a total of 334 cases of the three diseases notified or ascertained, 292, equal to 87.3 per cent. were received into the Hospital.

Admissions, Discharges, and Deaths during 1920:--

	Patients in	Admi	itted	Dis- charged		Remaining in Hospital 31st Dec., 1920	
DISEASE	Hospital 1st Jan., 1920	From Borough	From Rural District		Died		
Diphtheria	4	86	19	86	10	9	
Scarlet Fever	56	206	16	209	5	8	
Enteric Fever	_		1		1	_	
	60	292	39	295	16	17	

Under an agreement with the Stockton Rural District Council, cases of Scarlet Fever, Diphtheria, and Enteric Fever occurring in their district are admitted.

The Hospital is the special care of the Hospital Committee, under the Chairmanship of Alderman Douthwaite, M.R.C.S., &c. The Committee meet monthly—at the Hospital and at the Town Hall alternately. The Medical Officer of Health is the Medical Superintendent, and Miss J. F. Matthewson—whose very able administration I again desire to acknowledge—is the Matron.

The Council have a Hospital for Small-pox at Summerfield, about two miles out of the town. Two Humphrey's Iron Pavilions provide accommodation for twenty-four patients, and there are also two other wards converted from brick farm buildings that would accommodate an equal number. It is now seventeen years since a case of Small-pox occurred in the Borough of Stockton.

Under agreements with the Stockton Rural District Council, and the Hartlepool Port Sanitary Authority respectively, Stockton-on-Tees Town Council receive cases of Small-pox occurring in the Stockton Rural District, or in the Hartlepool Sanitary Authority area, into their Hospital.

The Robson Maternity Home, which was opened by the Council in April, 1919, received 244 patients during the year 1920.

The Stockton District Nursing Association, under agreements with the Stockton-on-Tees Town Council, provides nursing assistance to cases of Measles, Puerperal Fever, Epidemic Diarrhæa, Whooping Cough, and Ophthalmia Neonatorum.

## (3.) LOCAL ACTS AND GENERAL ADOPTIVE ACTS.

The following Acts are in force in the Borough:—
Stockton-on-Tees Extension and Improvement Act, 1869.
Stockton-on-Tees Extension and Improvement Act, 1889.

I.	· · · · · · · · · · · · · · · · · · ·
	When adopted
The Public Health Acts (Amendment) Act, 1890, Part III	1st June, 1893
The Infectious Diseases (Prevention) Act, 1890	18th Sept., 1897
The Housing of the Working Classes Act, 1890, Part III	14th Dec. 1900
The Notification of Births Act, 1907	21st Feb., 19 <b>0</b> 8
The Public Health Acts (Amendment) Act, Part V	6th April, 1908
The Public Health Acts (Amendment) Act, 1907, Parts 2, 3, 4, 5, 6, and 8	19th July, 1909
The Local Government Board's Provisional Order Confirmation (No. 19) Act, 1913	
Regulations under the Contagious Diseases (Animals) Act, 1886, and the Dairies, Cowsheds, and Milkshops Order	
of 1885	24th April, 1896

(4). Specimens for Bacteriological examination are sent to the Bacteriological Laboratory, College of Medicine, Newcastle-on-Tyne.

## BACTERIOLOGICAL EXAMINATIONS, 1920.

	P	ositive	I	Negative	N	o grov	vth	Total	
Diphtheria Tuberculosis		29		51		10		90	
		25		75				100	
Enteric Fever	• • •	_		5				5	
		54		131	• • •	10	,	195	

Samples taken under the Sale of Food and Drugs Acts are submitted to the Public Analyst for the County of Durham.

## Housing.

## (I) General Housing Conditions.

- (1) The general housing conditions may perhaps correctly be described as fair or moderate to good. Many working class dwelling-houses are all that can be desired, while on the other hand, numbers, from a health point of view, are deplorable. Probably the largest proportion of the total dwellings find their place between these two extremes.
- (2) (a) The shortage of houses is estimated at over 1,700. Seven to eight hundred are needed to meet the unsatisfied demand for houses. Five hundred will be needed to rehouse persons to be displaced by the clearance of unhealthy areas. Some number more than 50 will be needed to replace dwellings that are unfit and cannot be made fit for human habitation. Four hundred will be required to replace other dwellings which fall definitely below a reasonable standard.
  - (b) The measures being taken and contemplated to meet the shortage are the provision of new houses and the rendering of houses that are at present unfit, in all respects reasonably fit, for human habitation.
- (3 It is reasonable to anticipate considerable increase of the population, because of extensive areas of land having been purchased by several of the largest and most important companies in the district for expansion of their works, and also by other pioneer companies in the commercial world, for the establishment of industries new to the district.

#### (II) Overcrowding.

- (1 It is estimated that there are more than 800 tenements with more than two persons per room, and that more than 1,200 houses intended for one family, are occupied (without having been specially adapted) by two or more families.
- (2) The overcrowding is consequent upon insufficient housing accommodation for the increased population.
- (3) The measures being taken and contemplated for dealing with overcrowding, are the provision of new houses as well as rendering those houses at present unfit that can be so rendered, fit for habitation,

(4) The principal cases of overcrowding discovered during the year were:—

6 adults and 7 children occupying 2 bedrooms.

4 ,, 4 ,, 1 room.

2 , 10 , , 2 bedrooms.

12 adults occupying 3 bedrooms.

Beyond giving advice to the persons concerned, no action was taken.

## (III) Fitness of Houses.

- (1) (a) This is referred to above, paragraph 1.
  - (b) The general character of the defects found in unfit houses, apart from crowding upon area, are: bad construction, dampness, improper sanitary conveniences, absence of proper food stores, sinks or baths, and dilapidations.
  - (c) A considerable number of houses are managed for owners by agents, many of whom appear to rely too much upon defects being brought to their notice by sanitary inspectors before doing necessary repairs or improvements.
- (2) Houses found on inspection unfit are dealt with—
  - (a) Under the Public Health Acts, by giving informal notice of work required to be done, by the service of statutory notices requiring abatement of nuisances, and by requiring the provision of proper sanitary conveniences and ash receptacles, etc.
  - (b) Under the Housing Acts, by notices requiring specified work that will render the houses in all respects reasonably fit for human habitation, to be done. If the notices are not complied with, the Council instruct the Borough Engineer to carry out the work.
- (3) Difficulties in remedying unfitness have arisen chiefly from the large accumulation during recent years, which has rendered it difficult for the work to be overtaken. Until better houses are available it will be impracticable to deal with the unfit back-to-back houses and the other types of insanitary property.
- (4) The conditions as regards water supply are for the most part satisfactory. There are, however, a number of houses dependent on taps in the yards, and there are also, too many instances where a stand pipe in the open serves for several houses. The closet accommodation is indicated in preceding sections of the report.

#### (IV) Unhealthy Areas.

A single representation was made under Part 1 of the Housing Act of 1890, of an area designated the River Side Area. It was decided that a draft scheme should be prepared, and the Borough Engineer was instructed to prepare the necessary plans, particulars, and estimates. In a report dated the 4th June, 1920, the Borough Engineer reported that the Book of Reference and the necessary maps were being pushed on with.

(V) Bye-Laws relating to houses, to houses let in lodgings, an	d to
tents, vans, sheds, &c.	
(1 There are not any.	
(2) Bye-Laws in respect to houses let in lodgings, and vans, are desired	rable.
(1.) GENERAL.	
(1) Estimated population	63114
(2) General Death-rate	15.59
(3) Death-rate from Tuberculosis	1.48
(4) Infantile Mortality	109
	13454
(7) Number of new working-class houses erected	12115 16
(1) Ivaliasor of her working class houses elected	10
(2.) UNFIT DWELLING HOUSES.	
1. Inspection.	
(1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	1399
(2) Number of dwelling houses which were inspected under	1000
the Housing (Inspection of District) Regulations, 1910	413
(3) Number of dwelling houses found to be in a state so	.10
dangerous or injurious to health as to be unfit for human	
habitation	67
(4) Number of dwelling houses (exclusive of those referred	
to under the preceding sub heading) found to be not in all	
respects reasonably fit for human habitation	341
II. Remedy of defects without service of formal Notices.	
Number of defective dwelling houses rendered fit in conse-	
quence of informal action by the Local Authority or their	
officers	735
III. Astinus and Law Chatastanas Domina	
III. Action under Statutory Powers.	
A. Proceedings under Section 28 of the Housing, Town Planning Act, 1919.	, &c.
(1) Number of dwelling houses in respect of which notices	
were served requiring repairs	44
(0) Number of develling houses which were rendered fit	
(2) Number of dwelling houses which were rendered fit—  (a) by owners	Nil.
(b) by Local Authority in default of owners	Nil.
(3) Number of dwelling houses in respect of which Closing	
Orders became operative in pursuance of declarations by owners of intention to close	Nil.
OWINGS OF INCOMMENT OF CLOSE	7 4 1 1 4

B. Proceedings under the Public Health Acts.	
(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied 45	9
(2) Number of dwelling houses in which defects were remedied—	
(a) by owners 30 (b) by Local Authority in default of owners Ni	
C. Proceedings under Sections 17 and 18 of the Housing, Tow Planning, &c., Acts, 1909.	n,
(1) Number of representations made with a view to the making of closing orders Ni	il.
(2) Number of dwelling houses in respect of which closing orders were made Ni	il.
(3) Number of dwelling houses in respect of which closing orders were determined, the dwelling houses having been rendered fit Ni	il
(4) Number of dwelling houses in respect of which Demoli-	il.
(5) Number of dwelling houses demolished in pursuance of Demolition Orders N	il.
UNHEALTHY AREAS.	
Areas represented to the Local Authority with a view to Improvement Schemes under (a) Part I., or (b) Part II., of the Act of 189	
(1) Name of Area River Side Area	ea
(2) Acreage 17.4	42
(3) Number of working class houses in area 40	02
(4) Number of working class persons to be displaced 195	54
(4) Number of houses not complying with the building bye- laws erected with consent of Local Authority under Section	
25 of the Housing, Town Planning, &c., Act, 1919 N  (5) Stafi engaged on housing work, with, briefly, the duties of each officer.	il.
W. Auger Smith, lic., r.i.b.a, Architect in charge.—Supervise all work done by Department. Prepare all reports for Committee or Council. Attendall meetings Prepare all Specifications and Designs for new works, including details in all trades, and take off Quantities. Make monthly reports of progress to the Housing Commissioner and Ministry of Health. Superintend all work in course of erection.	l f
M. Munro, Clerk of Works.—In charge of works in course of erection, prepare monthly reports to office, and be responsible for all measurements of executed work and preparation of Form D. 201 for	l

- H. RICHARDSON, Architectural Assistant.—Charge of Drawing Office and the preparation of all drawings and details. Surveys and plotting same. Preparation of statistics with regard to workmen employed, and keeping of daily charts thereof on Scheme A. 23 (Grays Road Scheme).
- F. Jackson, Architectural Assistant.—Supervision of Scheme A 419 (Blue Hall Farm), setting out of work, instructing as to levels of roads and sewers, measurements of work completed and preparation of forms for returns to Ministry of Health.
- T. W. Dodsworth, Chief Clerk.—Charge of General Office. Keeping of all accounts and wages, both A 23 and A 419, in and out. preparation of figures for certificates and forms, D 170 A and D 172 A. Dealings with contractors and the abstraction of costs.
- G. Robson, Assistant Clerk.—Assisting with abstraction of costs, scrutiny of time sheets of contractors weekly, preparation of contractors' wages sheets monthly.
- J. Wilson (Miss) Junior Clerk.—Office routine with regard to letters, callers, telephone, and filing correspondence and general assistance.
- E. G. Power, A.R.S.I., J. Kirby, Cert. R.S.I., R. Wilson, Cert. R.S.I., Cert. S.I.E.B.—Are designated by the Council officers for making the inspection under and for the purpose of sub-section (1) of Section 17 of the Housing, Town Planning, &c. Act, 1909, acting under the direction and supervision of the Medical Officer of Health.

